Missouri Department of Natural Resources

Total Maximum Daily Load Information Sheet

Lamar Lake

Waterbody Segment at a Glance:

County: Barton
Nearby Cities: Lamar
Length of Impairment: 180 acres
Pollutant: Nutrients
Source: Agricultural Nonpoint Source


State map showing location of watershed

TMDL Priority Ranking: Medium

Description of the Problem

Beneficial uses of Lamar Lake

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life and Human Health associated with Fish Consumption
- Drinking Water Supply

Use that is impaired

- Drinking Water Supply

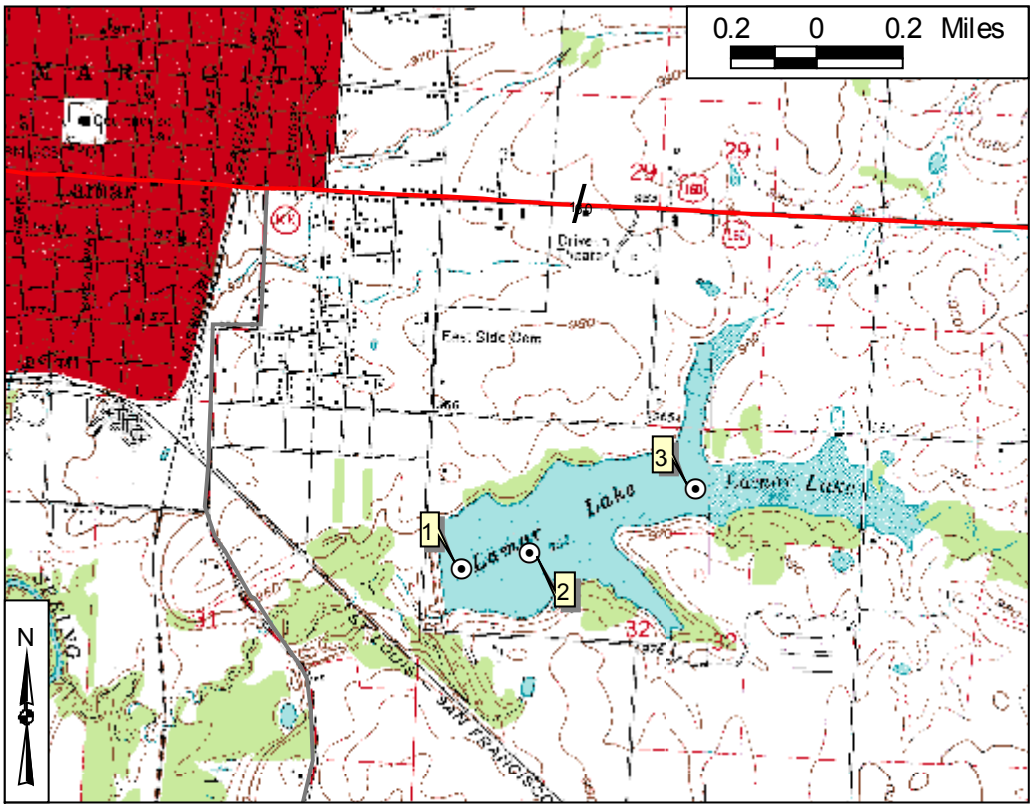
Standards that apply

- The impairment of Lamar Lake is based on exceedence of the general criteria contained in Missouri's Water Quality Standards, 10 CSR 20-7.031 (3)(A) and (C). These criteria state:
  - Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
  - Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.

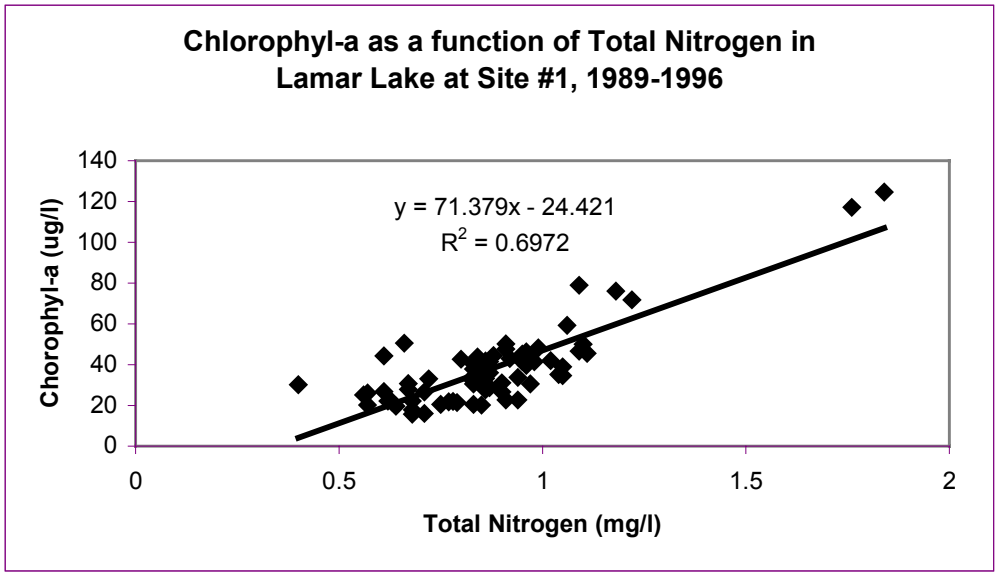
Lamar Lake serves as a drinking water supply source for the town of Lamar. The watershed of Lamar Lake is agricultural in nature, and agricultural fertilizer use and animal manure are significant sources of nitrogen and phosphorus. High levels of nitrogen and phosphorus in the stream feeding the lake have resulted in the production of large amounts of algae in Lamar Lake. Dieoff of large algal populations in the lake have led to chronic taste and odor problems and occasional problems with gastroenteritis in water users. Implementation of nutrient management plans on farms in this

watershed may be effective in reducing the present problem. A map of the lake and graphs summarizing the data may be found below.

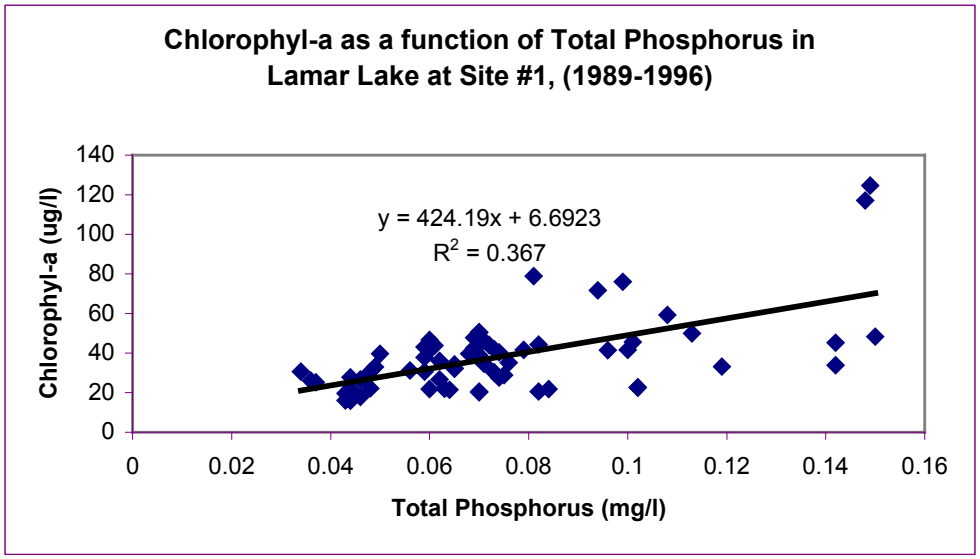
Lamar Lake in Barton County, Missouri, with Sampling Sites



Site Index
1 – Lamar City Lake near dam
2 – Lamar City Lake main body
3 – Lamar City Lake east arm



Data Source: Dr. Jack Jones, Professor of Limnology, University of Missouri at Columbia



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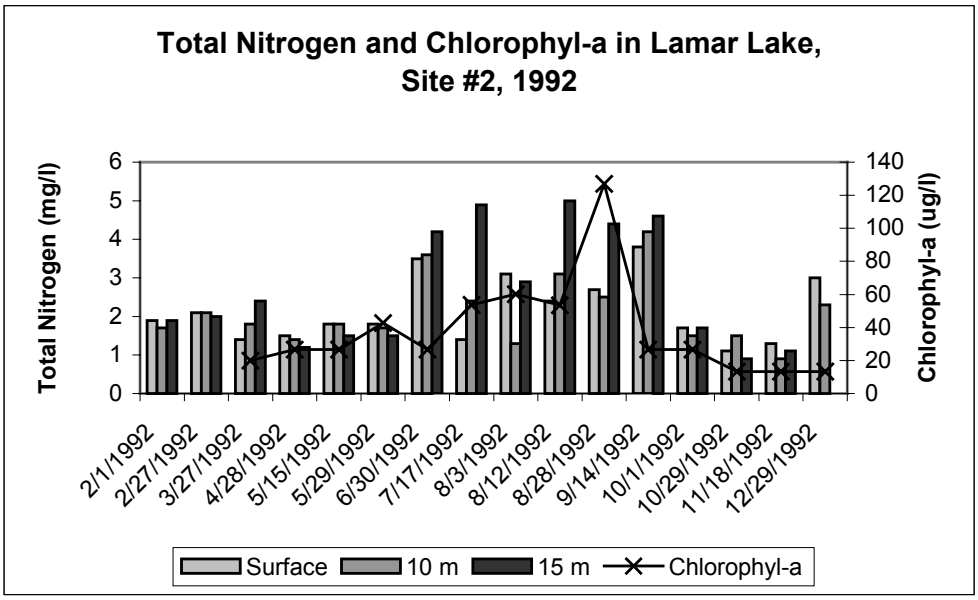
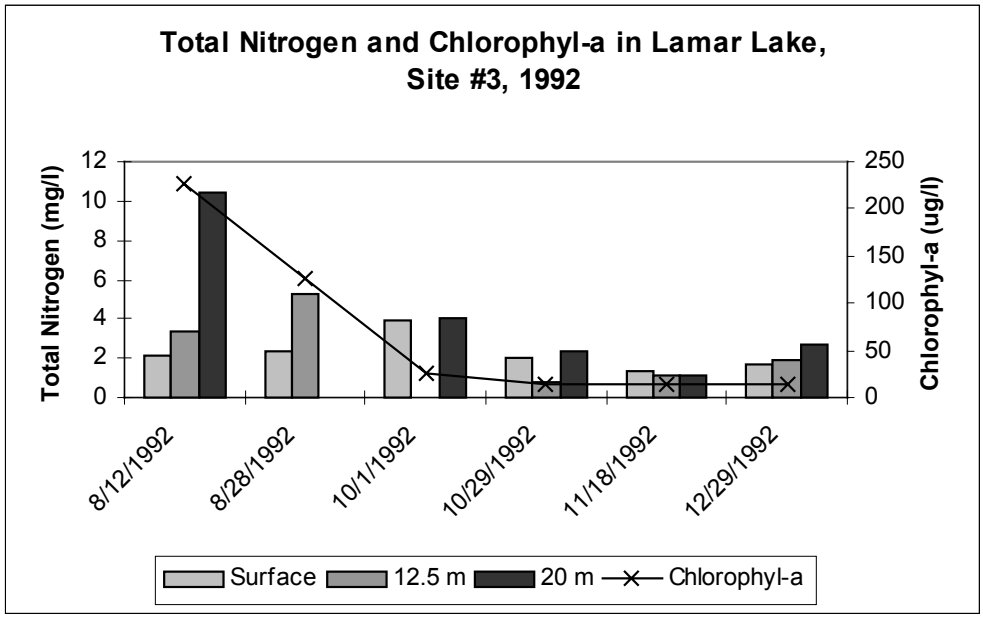


Data Source: Crowder College



Data Source: Crowder College

For more information call or write:

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